

The Rev. John Barber

NOTE

ON THE

from
Henry James.

BLOCK OF TIN

DREDGED UP IN

FALMOUTH HARBOUR.

BY

COLONEL SIR HENRY JAMES, R.E.,

DIRECTOR OF THE ORDNANCE SURVEY.

LONDON:

EDWARD STANFORD, 6, CHARING CROSS.

1863.

This "Note on the Block of Tin dredged up in Falmouth Harbour," has, with my permission, been re-printed in the Report of the Royal Institution of Cornwall, for 1863, with the following letters:—

Ordnance Survey Office, Southampton,
12th May, 1863.

My dear Sir,

I have ordered copies of the plates illustrating my "Note on the block of Tin" to be sent to you for the Annual Report of the Royal Institution of Cornwall. I shall be glad if you could have the letter from the late Sir George Cornwall Lewis (of which I enclose a copy), printed in the Report after the 'Note.' I am anxious that this letter should be published, because the following passage (at page 453 of his work on the "Astronomy of the Ancients") to which he alludes in this letter, has led many people to conclude that he was of opinion that the Ictis of Diodorus was the Isle of Wight:—"The Mictis of Trogus and the Ictis of Diodorus are probably variations of the Name of Vectis, by which the Romans designated the Isle of Wight." In this letter he distinctly denies that such was his opinion, but on the contrary that he was satisfied that St. Michael's Mount was the Ictis.

This is very important, and the printing of this letter will prevent future writers from quoting the high authority of Sir George Lewis to any contrary opinion.

I mentioned to you in a former letter, written before the lamented death of this great scholar, that he had informed me of his intention, in the event of his publishing a second edition of his work, to alter the passages relating to the Ictis, and to state that which he has in substance said to me in this letter.

Believe me, my dear sir, faithfully yours,

Dr. Barham.

HENRY JAMES.

Kent House, Knightsbridge, June 16, 1862.

My dear Sir Henry,

I am much obliged to you for sending me the full and satisfactory information about the ancient Cornish tin-trade, and for the trouble which you have taken in the matter.

The passage in my volume was not intended to convey the meaning which you attributed to it. All that I meant to say, was, that the names Mictis and Ictis were variations of Vectis, and arose from a confusion with that name. My impression was that *both* accounts were fabulous, and arose from the tendency to multiply islands, to which I have elsewhere adverted (see p. 465). The coincidence of the account of Diodorus with St. Michael's Mount is however so close, that it cannot be accidental, and the circumstances mentioned by Dr. Barham satisfy me that it was the port from which the tin was shipped for the Coast of Gaul. Your explanation of the block of tin is curious and ingenious, and affords a strong confirmation to the hypothesis that tin reached the Mediterranean by the overland route across Gaul, and was not carried round by the Straits of Gibraltar.

I understand that a model of this block is in the Jermyn Street Museum.

Believe me, yours very truly,

(Signed)

G. C. LEWIS.

Col. Sir H. James, R.E.

In the same Report there is a communication from Richard Edmonds, Esq., on "St. Michael's Mount and the Phœnicias," in which he rightly contends that the translators of Diodorus—English, French and Latin—have improperly changed the name Iktin, as we find it in Diodorus, to Iktis, and that Iktin in the Cornish language simply means the Tin-port.

5th October, 1863.

H. J.

NOTE ON THE BLOCK OF TIN

DREDGED UP IN

FALMOUTH HARBOUR.

ABOUT forty years ago a block of tin was dredged up near St. Mawes, at the entrance to Falmouth Harbour, and was presented by the late Thomas Daniel, Esq., of Truro, to the Museum of the Royal Cornwall Institution, in that town. A cast of this block will be found in the Museum of Economic Geology, in London.

Attentively considering the peculiar form of this block of tin, its weight, and the place where it was dredged up, it appears to me to throw great light upon the still vexed question of the locality of the Ictis of Diodorus.

Sir George C. Lewis has given, at page 452 of his work on the "Astronomy of the Ancients," a reference to the well known passage of Diodorus, relative to the tin trade of Britain, it is as follows:—

"Diodorus describes Britain as being like Sicily, triangular, but with sides of unequal length.

“ The promontory nearest the main-land was called
 “ Cantium (Kent); that at the opposite extremity
 “ was called Belerium, that turned towards the
 “ sea was named Orca (a confusion with the
 “ Orcades). The inhabitants of the promontory
 “ of Belerium were hospitable, and, on account of
 “ their intercourse with strangers, civilized in
 “ their habits. It is they who produce tin, which
 “ they melt into the form of astragali, and they
 “ carry it to an island in front of Britain, called
 “ Ictis. This island is left dry at low tides, and
 “ they then transport the tin in carts from the
 “ shore. Here the traders buy it from the natives
 “ and carry it to Gaul, over which it travels on
 “ horseback, in about thirty days, to the mouths
 “ of the Rhone.” Sir George Lewis then goes
 on to say, “Timæus mentioned an island Mictis,
 “ within six days sail of Britain, which produced
 “ tin, and to which the natives of Britain sailed
 “ in coracles.”

Dr. Barham, on the Ictis of Diodorus Siculus,
 in the 3rd volume of the 'Transactions of the Royal
 Geological Society of Cornwall, p. 91, says:—

“ In this case almost all parties agree both
 “ that there is one, and also that there is only one
 “ spot which at all answers to the description of
 “ the Iktis, viz., St. Michael's Mount.” And

again at page 92. "But in order to do justice
 "to our argument, it will be proper to consider
 "somewhat more particularly what kind of place
 "the Iktis must needs have been, and what there-
 "fore must be required in its representative.

"It appears that it was chosen by the ancient
 "merchants as the seat of a factory; they had
 "their establishment on it for purchasing, receiv-
 "ing and warehousing their tin, previously to its
 "being shipped; and finally it was here that they
 "put it on board for exportation.

"What then may we conceive the advantages
 "which recommended this spot to their choice?
 "We may naturally suppose, in the first place,
 "that it was one which afforded security against
 "sudden attack, and was capable of effectual de-
 "fence; for in the rude state of society then ex-
 "isting amongst the natives, such precautions
 "would be far from superfluous. But a matter
 "of still more urgent necessity was to possess a
 "commodious port for the shipping; this was an
 "indispensable condition, and we may therefore
 "be certain that the little island of Iktis was dis-
 "tinguished by this advantage. It was moreover
 "necessary for their purpose, that it should be
 "conveniently situated with respect to the mines;
 "some considerable mining districts must no doubt

“ have been in its neighbourhood. Finally, to
 “ render the foregoing advantages available, we
 “ must suppose that the adjoining shores were
 “ accessible and gentle, for down precipitous crags
 “ and cliffs, carts laden with tin could never go.
 “ Such then was the Iktis, a little island, not
 “ very remote from the Land’s End, and combin-
 “ ing in itself all the characteristic circumstances
 “ above detailed, and which are certainly not, in
 “ many instances, to be found united. Such,
 “ however, in every particular, is that little island,
 “ which at this very day we behold in our bay,
 “ St. Michael’s Mount. That this is admirably
 “ adapted for defence is obvious. It is a port which
 “ we daily see frequented by numerous vessels, and
 “ cargoes of tin are still sometimes taken on board
 “ there, after having been transported in carts
 “ across the isthmus. See the two views of the
 “ Mount, No. I. and No. II.”

With a place agreeing so fully in every parti-
 cular with the description of the Ictis given by
 Diodorus one is at a loss to imagine why so many
 writers should trouble themselves to look else-
 where for it. But it is contended by some,
 that because there the remains of a forest are
 found in the Mount’s Bay, below the level of the
 sea, and because the ancient Cornish name of the

Mount is "The hoar rock in the wood;" therefore, at the time it was so named, and at the time when Diodorus wrote, about 9 years B.C., the Mount must have stood on a plain surrounded with trees, and the description of its being an island at high-water and a peninsula at low-water would not apply to it. This objection is easily disposed of: it is quite true that there are the remains of a forest in the Mount's Bay, but similar remains are found in almost every bay or estuary all round the coasts of Great Britain and Ireland, and on the opposite coast of France, and they prove that, speaking geologically, the whole area has been recently depressed, although, as we can prove, not so recently as the period when Diodorus wrote. Similar remains of forests, for example, are found in Portsmouth harbour and in Southampton water, but the Roman works at Porchester in the former and at Bittern Manor in the latter are placed on low peninsulas, and the works are obviously designed with reference to the present configuration of the land and the present level of the sea.

We also know from the coins which have been found at Bittern Manor that the Roman station there (Clausentum) was established as early as the time of Diodorus, and was occupied by the Romans for near 400 years afterwards,

and consequently that the depression of the large area referred to, including that at the Mount's Bay, took place long before, and probably thousands of years before, he wrote.

Besides which there are trees growing on the Mount, and in sufficient number to have justified the ancient descriptive name of "The hoar rock in the wood."

The form of the block of tin which was dredged up in Falmouth harbour is best understood by reference to the drawings, in No. III; it is shewn in plan and in section. It is 2 feet 11 inches long, 11 inches wide, and 3 inches thick at the centre, perfectly flat on one side, but curved on the other, and having four prolongations at the corners, each 1 foot long.

It is said by Diodorus that the inhabitants of the promontory of Belerium (the most western part of Cornwall) cast the tin into the form of "astragali" *αστραγαλων ρυθμοῦς*. I have the authority of Professor Owen for saying that this peculiar form of the block was properly described by Diodorus as in the form of an astragalus, or knuckle-bone, and that an astragalus is, in fact, the type of such a form—this alone gives a peculiar interest to this block of tin. But we are naturally led to inquire why this peculiar

form was selected for the blocks. We are told that the traders resorting to Ictis, there buy the tin from the natives and carry it to Gaul, over which it travels on horseback in about thirty days. It was, therefore, necessary that the blocks of tin should be cast in such a form, and be of such a weight as to be conveniently carried both in boats for transport to Gaul, and then on horseback for the journey over land; and it is impossible to look at this block of tin without being struck with the admirable adaptation of the form and weight for this double purpose, and also for the purpose of being easily carried by hand by two men, or slung for lifting it either into or from a boat, or on and off a horse.

This is seen at a glance by the accompanying sketch in No. 3, the curved surface of one side of the block exactly fits the curve of the bottom of a boat, whilst the flat plane surface of the other sides would form a continuous level floor to the boat, which being covered with bottom boards would entirely conceal the valuable cargo beneath, and the ribs of the boat, coming up through the divided ends of the block, would prevent the possibility of any shifting of the cargo when the boat was pitching or rolling in the sea, and the blocks resting on the keel and ribs of the boat, would prevent

any strain upon the planking when the boat was run ashore and grounded, and as ballast to the boat when under sail, the blocks are in the lowest and best possible position.

Arrived in Gaul and disembarked, we see that the weight, about 130 lbs., is just the proper weight for a horse having to carry two of them on a pack-saddle, and the form is so nicely adjusted and the weight so judiciously distributed as to enable the horse to carry them with the least fatigue, whilst a single sling over the pack-saddle, with two blocks of wood on the trees of the saddle, would perfectly secure it on the horse. See sketch No. IV.

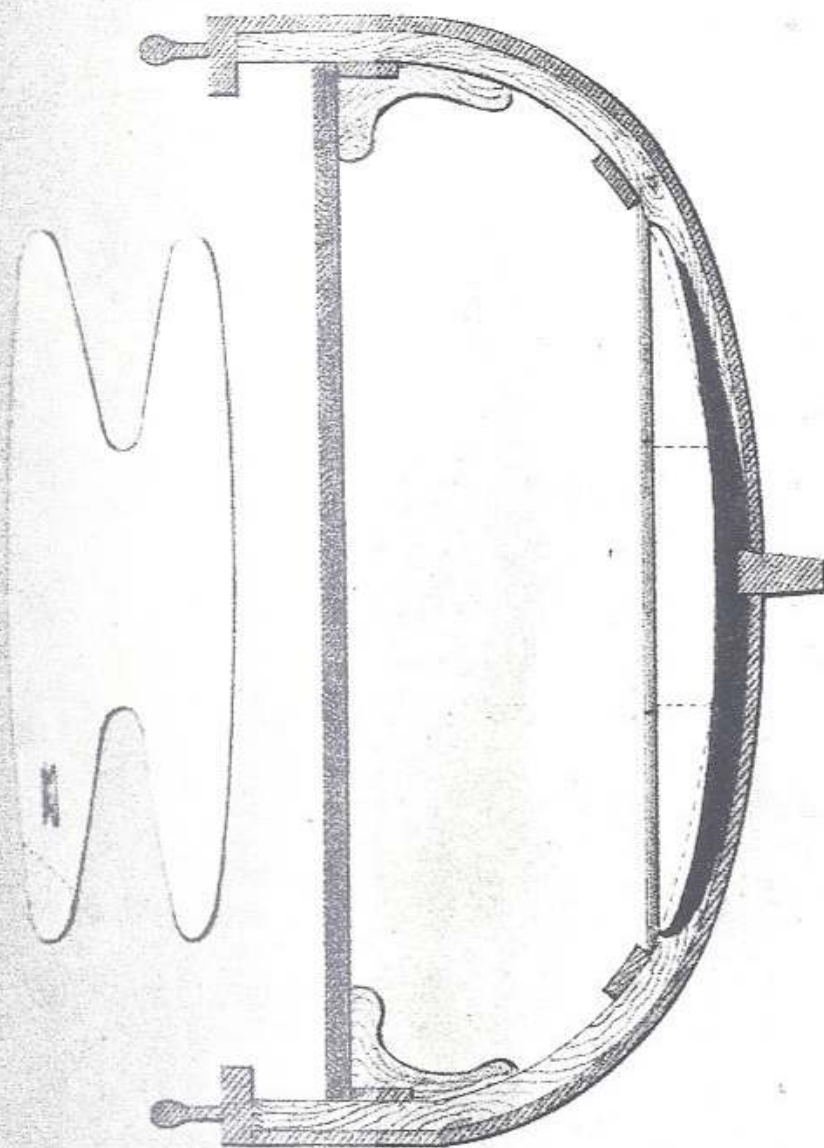
It is impossible to look on this block of tin, and see how admirably it is designed for transport both by land and water, without arriving at the conclusion that we have here before us one of the astragali described by Diodorus, and seeing the perfect and most remarkable agreement of his description of Ictis with St. Michael's Mount, can we doubt, that it was from that place that this block of tin was embarked. The boat on its voyage coastways to Boulogne, or one of the nearest ports of France to England, was probably swamped at the entrance to Falmouth harbour, whilst endeavouring to gain the shelter of the inlet at St. Mawes.

That the Ictis of Diodorus was the same place as the Mictis of Timæus, is made evident from the fact that it is the only island where tin is produced, and it would be just a six days' passage, under ordinary circumstances, from Dover or Hythe to St. Michael's Mount, allowing for a progress of 50 miles a day. The distance from Boulogne to Marseilles is also just what could be travelled by loaded horses in 30 days, allowing from 18 to 20 miles for each day's journey.

I do not think it necessary to discuss the claims of the Isle of Wight to be considered the Ictis, as the description of the place does not now, and could not at any time, have applied to it in any one particular.

H. J.

Plan of Block of Tin



SECTION OF BOAT WITH BLOCK OF TIN IN IT.



HORSE CARRYING BLOCKS OF TIN